DA 12-523
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COMMISSION SEEKS COMMENT ON EMERGENCY COMMUNICATIONS BY AMATEUR RADIO AND IMPEDIMENTS TO AMATEUR RADIO COMMUNICATIONS
GN Docket No. 12-91

Comments of George Bednekoff, AC5WO

Reply to questions highlighted.

Questions

We pose specific questions below to provide structure for commenters. Commenters may also address questions not set forth below that relate to the topics of the study to be submitted to Congress. Commenters should not, however, view this *Public Notice* as an opportunity to seek Commission rulings regarding specific situations.

1. **Importance of emergency Amateur Radio Service communications.** As noted above, the statute requires a review of the importance of emergency Amateur Radio Service communications relating to disasters, severe weather, and other threats to lives and property.
    a. What are examples of disasters, severe weather, and other threats to life and property in which the Amateur Radio Service provided communications services that were important to emergency response or disaster relief? Provide examples of the important benefits of these services. The Amateur Radio Service is uniquely useful in providing communications help in situations where there is wide-area loss of infrastructure such as in the aftermath of a major hurricane. An Amateur Radio Station with reasonably efficient antennas can establish a communications link from within the disaster area to some distant location where communications infrastructure is intact without placing a burden on damaged infrastructure or people working on recovery.
    b. Under what circumstances does the Amateur Radio Service provide advantages over other communications systems in supporting emergency response or disaster relief activities? Under what circumstances does the Amateur Radio Service complement other forms of communications systems for emergency response or disaster relief? The Amateur Radio Service provides a unique combination of communications capability independent of other communications infrastructure combined with trained volunteers with experience establishing communications over these independent radio links. Cellular telephone networks typically fail due to lost power to cell sites combined with call volumes that exceed the network capacity. Radio Amateurs are able to find alternate sources of power, prioritize messages, and change frequencies and transceiver settings to communicate important information when all else fails.
    c. What Federal Government plans, policies, and training programs involving emergency response and disaster relief currently include use of the Amateur Radio Service? What additional plans, policies, and training programs would benefit from the inclusion of Amateur Radio Service operations? How would Amateur Radio Service operations fit into these plans and programs?
    d. What State, tribal, and local government plans, policies, and training programs involving emergency response and disaster relief currently include use of the Amateur Radio Service? What additional plans and programs would benefit from the inclusion of Amateur Radio Service operations? How would Amateur Radio Service operations fit

into these plans and programs?

e. What changes to the Commission's emergency communications rules for the Amateur Radio Service (Part 97, Subpart E) would enhance the ability of amateur operators to support emergency and disaster response? In addition, are there any specific changes that could be made to the technical and operational rules for the Amateur Radio Service (Part 97, Subparts B, C, and D) that would enhance the ability of amateur operators to support emergency and disaster response? What other steps could be taken to enhance the voluntary deployment and effectiveness of Amateur Radio Service operators during disasters and emergencies? In my opinion the rule 97.113(a)(3) prohibiting communications on the behalf of an employer needs an additional exception. I believe that it is in the public interest for Amateur Radio Operators to assist fellow employees get in contact with their family members if disaster strikes when the ham is at work. It makes no sense to not help your coworkers where you are provided that the focus of the communications is employee welfare and not business operations.

f. What training from government or other sources is available for Amateur Radio Service operators for emergency and disaster relief communications? How could this training be enhanced? Should national training standards be developed for emergency communications response?

g. What communications capabilities, *e.g.*, voice, video, or data, are available from Amateur Radio Service operators during emergencies and disasters? Are there any future technical innovations that might further improve the Amateur Radio Service?

h. Are national standards in data transmission needed to enhance the ability of Amateur Radio Service operators to respond to emergencies and disasters? No. Are there restrictions with regard to transmission speeds that, if removed, would increase the ability of operators to support emergency/disaster response? If so, what issues could arise from removing these restrictions? Amateur Radio works in an emergency in part because individual Amateur Radio Operators are controlling traffic flow to avoid overload. Some restrictions on automated message forwarding are probably required for the smaller frequency bands below 28 MHz.

i. Would it enhance emergency response and disaster relief activities if Amateur Radio Service operators were able to interconnect with public safety land mobile radio systems or hospital and health care communications systems? Probably not. What could be done to enable or enhance such interconnections? What issues could arise from permitting such interconnections? There is some risk that these interconnections drive more traffic onto Amateur Radio communications links, making them fail from overload too.

j. Should there be national certification programs to standardize amateur radio emergency communications training, mobilization, and operations? How would such programs improve emergency communications?

2. **Impediments to enhanced Amateur Radio Service communications.** The statute also requires that the study identify impediments to enhanced Amateur Radio Service communications and recommendations regarding the removal of such impediments.

a. What private land use restrictions on residential antenna installations have amateur radio operators encountered? Boilerplate language prohibiting outdoor antennas is ubiquitous for homes built in the 1980s and later, at least here in Texas. The difference is some neighborhoods have an HOA that aggressively enforces antenna prohibition and some neighborhoods have no enforcement of the ban. What information is available regarding the prevalence of such restrictions? What are the effects of unreasonable and unnecessary restrictions on the amateur radio community's ability to use the Amateur Radio Service? Specifically, do these restrictions affect the

amateur radio community's ability to respond to disasters, severe weather, and other threats to lives and property in the United States? Creative Amateur Radio operators have found ways to hide outdoor antennas, but clandestine operation inherently means that neighbors that could benefit from that communications capability don't know that their neighborhood Amateur Radio station exists. What actions can be taken to minimize the effects of these restrictions? In my opinion licensed Amateur Radio Station need a limited relief from private land use restrictions similar to the OTARD rule for television antennas.

b. What criteria distinguish "unreasonable or unnecessary" private land use restrictions from reasonable and necessary restrictions? Fundamentally Amateur Radio Stations need to make radio frequency currents flow in the right position in space relative to the ground to make radio frequency energy go where it's needed. Antennas can be hidden behind other objects, painted to match the background, disguised as non-antenna objects, or made out of almost invisible thin wire, but antennas want to be at the right height above ground and separated away from the house and other structures. How do local circumstances, such as neighborhood density or historic significance, affect whether a private land use restriction is reasonable or necessary? It is always unreasonable to prohibit invisible antennas. How does the availability of alternative transmitting locations or power sources affect the reasonableness of a particular private land use restriction? Requiring infrastructure to support an Amateur Radio Station make that station much less robust in an emergency. Alternate locations are not a viable option.

c. What steps can amateur radio operators take to minimize the risk that an antenna installation will encounter unreasonable or unnecessary private land use restrictions? For example, what obstacles exist to using a transmitter at a location not subject to such restrictions, or placing an antenna on a structure used by commercial mobile radio service providers or government entities? Individual Amateur Radio Operators have essentially no influence over the private land use restrictions that get filed before a subdivision is built. Since both the builder selling the houses and most customers buying houses think antennas lower property values, they throw in language banning them and those restrictions follow the property forever.

d. Do any Commission rules create impediments to enhanced Amateur Radio Service communications? What are the effects of these rules on the amateur radio community's ability to use the Amateur Radio Service? Do disaster and/or severe weather situations present any special circumstances wherein Commission rules may create impediments that would not otherwise exist in non-disaster situations? What actions can be taken to minimize the effects of these rules?

e. What other impediments to enhanced Amateur Radio Service communications have amateur radio operators encountered? What are the effects of these impediments on the amateur radio community's ability to use the Amateur Radio Service? Specifically, do these impediments affect the amateur radio community's ability to respond to disasters, severe weather, and other threats to lives and property in the United States? What actions can be taken to minimize the effect of these impediments?

f. The legislation requires the Commission to identify "impediments to *enhanced* Amateur Radio Service communications."[1] What specific "enhance[ments]" to Amateur Radio Service communications have been obstructed by the impediments discussed above?